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AIR WAR COLLEGE

RESEARCH REPORT

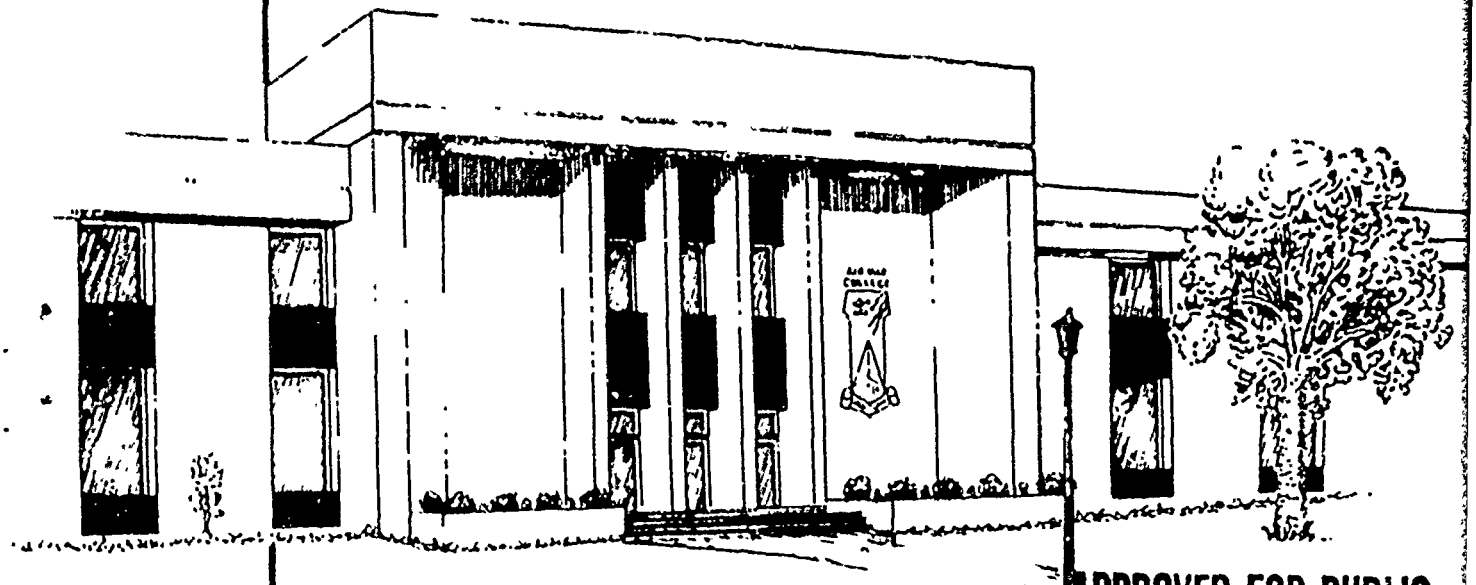
IS THE USAF OFFICER CORPS A FIGHTING FORCE?

COLONEL GARY L. LINDNER

AND

LT COL DAVID R. LOVE

1988



AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

AIR WAR COLLEGE

AIR UNIVERSITY

IS THE USAF OFFICER CORPS A FIGHTING FORCE?

BY

GARY L. LINDNER

Colonel, USAF

AND

DAVID R. LOVE

Lieutenant Colonel, USAF

A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH REQUIREMENT

RESEARCH ADVISOR: COLONEL RONALD L. MOREY

MAXWELL AIR FORCE BASE, ALABAMA

MAY 1988

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: IS THE USAF OFFICER CORPS A FIGHTING FORCE?

AUTHORS: Gary L. Lindner, Colonel, USAF

David R. Love, Lieutenant Colonel, USAF

A historical review of Air Force officer corps size and a comparison of rated to nonrated populations introduce an in-depth look at the effectiveness of the USAF officer force. Initially, the officer requirements process is discussed. This is followed by analyses of the officer corps size in relation to enlisted population, force structure, and installations. Officer growth patterns are scrutinized by major command and occupational specialty. Conclusions derived from the authors' research point out a net decrease in fighting force effectiveness of our officer corps over the last decade. Recommendations to correct this adverse trend are offered.

BIOGRAPHY

Colonel Gary L. Lindner (B.S., USAF Academy; M.P.S., Auburn University) is a command pilot with an operational background in Strategic Air Command (SAC) and Air Training Command (ATC). In Southeast Asia, he flew 872 combat hours. Most recently, he was a flying squadron commander. Outside operations he has had duties in aircraft maintenance, personnel, plans, and programs. He has been assigned to Headquarters SAC, ATC, and the Air Staff. He is a graduate of Squadron Officer School and a distinguished graduate of Air Command and Staff College (ACSC). While at ACSC, he received the Air War College research excellence award for his contributions to an Air War College publication. Colonel Lindner is a graduate of the Air War College, class of 1988.

BIOGRAPHY

Lieutenant Colonel David R. Love (B.S., Texas Tech; M.A., Webster College) is a command pilot with operational experience in Strategic Airlift, Tactical Airlift, Strategic Bombing and Undergraduate Pilot Training. He served in Southeast Asia and holds the Distinguished Flying Cross and Air Medal. He is a graduate of the Royal Air Force Advanced Staff Course. Colonel Love is a graduate of the Air War College, class of 1988.

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CHAPTER I

INTRODUCTION

The National Security Act of 1947 stated that, "The Air Force shall be organized, trained, and equipped primarily for prompt and sustained offensive and defensive air operations." Nothing since the establishment of the Air Force as a separate service has altered this fundamental charter. Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force, goes on to say that:

> the basic objective of aerospace forces is to win the aerospace battle--to gain and/or maintain control of the aerospace environment and to take decisive actions immediately and directly against an enemy's warfighting capacity. These actions include neutralizing or destroying the enemy's forces, his command and control mechanisms, and his sustaining warfighting capacity. As a critical element of the interdependent land-naval-aerospace team, airpower can be the decisive force in warfare. Commanders must design their warfighting organization and plans to take advantage of this relationship.[1]

Clearly, this is consistent with our basic warfighting charter.

Unlike the Army, Navy, and Marines, our fighting forces come almost exclusively from the officer corps. More specifically, the rated and missile operations officers are the warrior element within the Air Force. We expect changes in our force structure and officer corps to affect our combat

effectiveness.

During the past decade, the Air Force, along with the other services, has come under increasing criticism for the management of the officer corps. Many self-appointed defense reformers have taken broadside shots at the military officer corps. Edward Luttwak in his book, The Pentagon and the Art of War, devotes two chapters to what he calls an officer surplus. Here's an example of how he views the situation.

> The grossly excessive number of officers above middle rank drowns the undoubted talent and dedication of individual officers in the mediocrity of the crowd. And the diffusion of decision-making power among the many separate military bureaucracies that have proliferated over the years to accommodate all those officers defeats the pursuit of any coherent policy in peace or war. The consequences of the officer surplus for the peacetime management of the military establishment are widespread and surprisingly harmful.[2]

Senator Gary Hart and William Lind, in their book, America Can Win, assert that:

> there is a large surplus of officers in the ranks of major/lieutenant commander and above. This surplus causes much of the bureaucratization and centralization that plague our armed services and reduce military effectiveness. Since there are far fewer real jobs--those that actually need to be done--than there are middle and senior ranking officers, vast numbers of make-work jobs are created. To compete for promotions, officers must be very busy in these unnecessary jobs, and their activity results in the generation of paper, in pushing decisions to ever higher levels, and in doing everything by committee consensus.[3]

Their solution is to reduce the field grade force by 50 percent; a solution that does not appear to be derived from any rational analysis.

In addition to "enlightened" authors, the services are

repeatedly being pressed by Congress to cut manpower. Rarely does a budget cycle go by without pressure to cut personnel positions. Air Force Times headlines give us a blow-by-blow description of impending doom: September 21, 1987--"Congress Likely to Order Officer Cuts of 1% for 1988;"[4] November 16, 1987--"Hill Conference Approves Cut of 3,000 Officer Slots;"[5] January 11, 1988--"20,000 Cut Planned in AF End Strength;"[6] January 18, 1988--"Officer Cut of 2,255 Planned by September 30."[7] Ironically, Air Force Times headlines rarely translate into reality, but they do keep emotions running high. The most recent proposals for congressionally sponsored force reductions are spearheaded by Senator John Glenn, a former military officer. Not to be outdone, the General Accounting Office has recently joined in the foray with a study critical of the Air Force system of determining manpower requirements.[8] Additionally, Senator Glenn has asked the General Accounting Office to conduct a study of Air Force pilot requirements.[9]

Experience has shown that there is no shortage of critics when it comes to recommendations on how to operate the military. Despite their disclaimers, critics of the military since the Vietnam experience have invariably had two themes. First, the Department of Defense gets too large a share of the federal budget. Second, our military has too many people, especially in the officer corps. For critics, reducing military manpower is a quick solution to satisfying both themes. In order to shape our manpower requirements and intelligently respond to our critics,

it is important that we learn as much as possible about our officer corps.

The objective of this paper is to take a look at the Air Force officer corps from some different angles, and, in the process, attempt to get a better grasp of its effectiveness as a fighting force. If we're satisfied that we've taken prudent actions in building our officer corps, then we can respond to our critics in good faith. If we're not satisfied with what we see, then at least we have a basis for making future manpower decisions.

Our first step in the process will be to take a historical look at our officer corps size and how it has varied since our inception as an independent service. The next step is to assess how officer requirements are determined. Then, some comparisons of the officer corps to enlisted strength, force structure, and installations will, hopefully, give us a better concept of the relationship between the officer corps and other Air Force elements. Analyses of officers by major command and occupational speciality will further clarify where our officers are and what they are doing. At this point, we should have enough information to make some specific statements about the Air Force officer corps along with any recommendations that may be appropriate.

CHAPTER II

HISTORICAL REVIEW OF OFFICER CORPS SIZE

The Air Force officer corps traces its history back to the Army Air Corps. At the end of World War II in August 1945, Air Corps officer strength peaked at 245,511. Anxious to demobilize, the total number of officers assigned to aviation and related specialties plummeted to 31,497 by December of the following year. In 1947, the Air Force was established as an independent service and began to chart its own path.

Since that time, several events have occurred which have affected the size of our officer force. Among these are the Korean Conflict, the introduction of a formidable strategic arsenal, the Southeast Asia Conflict, and an increased conventional military commitment to our NATO allies. For the last 15 years, we have not been involved in any conflict requiring a large military commitment. Clearly these events, along with others, have impacted the size of our officer force.

The following table traces officer force totals from 1950 to 1985 in five-year increments. This information is graphically depicted in yearly increments for the same period at Attachment 1.

YEAR	OFFICERS
1950	57,006
1955	137,149
1960	129,689
1965	131,812
1970	129,352
1975	105,161
1980	97,901
1985	108,400

Source: AF/MPPTF[1]

A review of this data reflects substantial growth of the officer corps in the early years as an independent service. Certainly some of this early growth can be attributed to events such as the Berlin Airlift in 1948 and the Korean War from 1950-1953. Air Force officer strength peaked in 1956 at 142,071 and then began a gradual reduction to approximately 130,000 by 1960. Officer totals rose in 1967-1969 to the 135,000 plus range with a peak in 1968 of 139,600. This growth undoubtedly resulted from the increased manpower requirements associated with our Southeast Asia involvement. However, somewhat surprisingly, we witness a gradual decline in the number of active duty Air Force officers during the latter portion of our involvement in Vietnam. From 1969 until our final withdrawal in 1975, the net reduction in the officer force was almost 20,000. This downward trend

continued until 1978 when the total dipped to 95,643. However, from 1978 through 1985, officer totals climbed steadily, back over the 100,000 mark, reaching 108,400 by the end of fiscal year 1985.

At this point, we have a fundamental understanding of officer strength totals from our beginning as a separate service to the modern era. Two interesting points emerge from this overall look at officer strength. First is the consistent reduction in total officers during the height of the Vietnam conflict from 1968 through the mid-1970's. Just as interesting, however, is the growth the Air Force has experienced from the late 1970's through the last fiscal year. What makes this noteworthy is that our country does not have a history of military manpower growth during times of peace.

OFFICER CORPS COMPOSITION

At this juncture, it may prove useful to examine the composition of our officer corps over the last 35 years. Many who look at the Air Force officer segment focus heavily on the rated (pilots, navigators, observers) population. The rationale for this seems to center on the expense involved in training flyers and the fact that they constitute the bulk of our fighting force.

The following table is a numerical comparison of rated and nonrated officers at five year intervals. For an annual comparison from 1950-1985, refer to Attachment 2.

YEAR	TOTAL	RATED	NONRATED
1953	57,006	31,830	25,176
1955	137,149	71,661	65,488
1960	129,689	72,648	57,041
1965	131,621	65,513	66,108
1970	129,532	54,356	75,176
1975	105,161	46,639	58,522
1980	97,901	35,100	62,801
1985	108,400	34,535	73,865

Source: AF/MPPTF[2]

It is in this comparison that we reveal some rather dramatic information about the composition of our officer corps. Most significant is how the balance between the rated and nonrated force has radically shifted over the last 35 years. Other than for a brief period in the early 1950's, our officer corps was predominantly a rated force through 1965. The rated population peaked in 1957 at 78,459. Officer accessions during the late 1960's concentrated heavily on nonrated specialties. The peak in nonrated officer population occurred in 1968 at 80,406. Total officer numbers peaked as well that year with 139,600 active duty officers.

As mentioned earlier, it was in 1968 that a consistent

force drawdown began that would affect both the nonrated and rated officer totals. The reduction in the rated force continued until 1980. In fact, the rated population in the Air Force has declined every year from 1957-1980. In the 1980's the rated force stabilized at the mid-30,000 range. The nonrated force also began a drawdown from 1968 force levels; however, unlike the rated force, this trend stopped in 1977, and since that time the nonrated force has experienced consistent annual growth. An interesting comparison shows that the nonrated force experienced a net reduction of slightly over 1,000 officers (75,176 vs 73,879) from 1970 to 1985. During that same period, the rated force experienced a reduction of almost 20,000 officers (54,356 vs 34,515). This represents a radical change in the composition of the officer corps.

RATED/NONRATED OFFICER DEMOGRAPHICS

Because of the marked difference in the population shifts between the rated and nonrated communities, it may prove useful to examine and compare them as separate groups. Until the mid-1960's, most Air Force officers were aviators. However, since that time the majority have been nonflying officers. The chart below reflects what percentage of the total officers were rated at five-year intervals throughout our history. Attachment 3 shows this information in graph form for each year.

PERCENTAGE OF LINE OFFICERS WITH AERONAUTICAL RATING

1950	56%
1955	52%
1960	56%
1965	50%
1970	42%
1975	44%
1980	36%
1985	32%

Source: AF/MPPTF[3]

One basic fact emerges from this information--the Air Force has transitioned from a predominantly rated officer corps to one that is currently over two-thirds nonrated. One explanation for this is that, in the past, many aviators were used in positions that could have been just as easily manned by a nonflyer. This was true in the late 1950's and early 1960's as our pilot surplus ranged as high as 5,650 in 1965 and our navigator surplus peaked at 6,231 in 1964.[4] It was also true in the mid-1970's with pilot surpluses reaching 5,077 in 1976 and navigator overages peaking at 1,340 a year later.[5] Many remember the large contingent of aviators who were sent into rated supplement duties during the 1970's along with very liberal separation policies. By 1980, the pendulum had reversed course.

High aviator separation rates along with the lowest undergraduate flying training production rates in history created a shortage of flyers compared to the validated rated requirement. For example, undergraduate pilot training production in 1979 was 1047 compared to 4,032 in 1972. A year later (1980) we had 1067 fewer pilots than the 22,963 requirement and 346 fewer navigators than the 10,471 requirement.[6] These shortfalls were offset to some degree by higher than anticipated retention and by reducing the rated supplement to minimum acceptable levels (2,951 positions).[7] Additionally, we returned to force sustaining undergraduate flying training levels by 1982.

The purpose in reviewing this part of the officer corps history is to illustrate how we reached at least a temporary balance by 1985 of rated inventory and requirements. This is important in that the 32% rated/68% nonrated officer ratio in 1985 was not driven by any large excess or deficit of rated officers.

There are some conclusions that we can reach as a consequence of our historical review:

1. The Air Force officer corps has transitioned from a predominantly rated to nonrated force.

2. The officer corps has experienced consistent growth since 1978.

3. Officer increases since 1978 have been almost exclusively in nonrated specialties.

Based on those conclusions, it would be logical to examine officer requirements, and how they are derived. This review should validate the process by which officer force totals are justified within the Air Force.

CHAPTER III

OFFICER REQUIREMENTS

"The Air Force generally is recognized as the leader among the services in using scientific means to determine personnel requirements."[1] A review of the manpower requirement process will give a better understanding of how the system works. The following is a summary of the process contained in AFR 26-1.

The three major groups in the Air Force manpower functional staff organization are the Air Staff Director of Manpower and Organization, the Air Force Management Engineering Agency (AFMEA) and its subordinate Functional Management Engineering Teams, and the Major Command Directors of Manpower and Organization and their Command Management Engineering Teams. The USAF Director is the focal point for overall policy and direction of the Air Force manpower program. AFMEA operates under the functional management engineering concept, using functional management engineering teams. The teams develop and maintain manpower standards in Air Force common functions by conducting industrial engineering studies. Currently, there are eleven functional areas in which these teams conduct studies:

Comptroller

Data Automation

Engineering and Services

Maintenance and Supply

Medical

Munitions

Manpower and Personnel

Security Police

Special Staff

Transportation

Intelligence

These teams cover approximately two-thirds of the Air Force total manpower resources, with ongoing plans for increased coverage. MAJCOM manpower directors basically have the same responsibilities as their Air Staff counterparts, with management engineering teams distributed throughout the respective major commands.[2]

MANAGEMENT ENGINEERING PROCESS

The cornerstone of the Air Force manpower management concept is the management engineering process. It is through the development of manpower standards that manpower requirements are determined and justified. This process relies on the industrial techniques applied by the management engineers. These techniques include activities such as time study, work sampling, queuing analysis, and operational audit. Following work measurement and

computations, the standards are staffed and approved by HQ USAF and AFMEA.[3]

When sufficient manpower resources are not available to cover an increase in manpower requirements, they are entered into the planning, programming, and budgeting system (PPBS) through MAJCOM or Air Staff-sponsored program decision packages (PDPs). These PDPs are generally accepted by the Air Force Board Structure with little or no debate, because their bases and validity are not generally understood by anyone outside the manpower community. Additionally, manpower additions/deletions tend to be incremental in nature, and are frequently associated with new programs or projects. As a consequence, entire career fields are rarely looked at by the board structure for a "big picture" review. In short, the review process is generally confined to the manpower experts.[4]

Recently, our manpower system has been the target of a General Accounting Office (GAO) report.[5] As mentioned earlier, the current Functional Management Engineering concept purportedly covers 66 percent of the manpower resources by specific work-related criteria, while the GAO contention is that only about 52 percent of Air Force positions are covered by these type measurements. Regardless of the precise percentage, it is safe to say that between one-third and one-half of the total Air Force manpower requirement is not covered by specific work-related data.

RATED MANAGEMENT PROCESS

Military aviator requirements are governed by an entirely separate process, but with the manpower community still in the loop. The 23 April 1987 Rated Management Document covers this process in detail. Excerpts from that document follow to give the reader an understanding of this unique activity. Our current rated management system evolved from the Rated Distribution and Training Management concept developed in the mid-1970s.[6]

Under the current structure, AF/XOOTW is the focal point for the Air Force rated management process. However, numerous other agencies actively participate in the process, providing a series of checks and balances. MAJCOM inputs are integral in terms of constraints, training capabilities, and programmed flying training documents. Personnel (AF/DPX) determines rated inventory projections and undergraduate flying training rates to sustain the rated force. Manpower (AF/PRM) is focal point for rated requirements. AF/XOO and the MAJCOMS determine absorption and stability criteria and, with the assistance of AFMPC, distribute the rated force accordingly.

As mentioned, Air Staff manpower helps determine rated requirements. These requirements are published after every major budget exercise (three times per fiscal year) and are based on the funded Air force program as of that exercise. Justification for a rated requirement must be based on at least one of the following: force structure, training programs, overhead workload, professional/career development and education. Force

structure is the major factor for determining rated needs and is computed by applying crew ratio and crew complement factors to the number of aircraft. Training needs translate directly into instructor needs. These are quantified by applying student loads and instructor to student ratios. Closely associated is the student authorization (post UPT) which translate into student load data. Overhead workload factors are documented by manpower teams and reviewed by Air Staff manpower officials. Currently, staff requirements growth must be associated with supporting force structure growth. In the absence of force structure growth, agencies must identify tradeoffs from within their authorized rated staff before new authorizations can be approved. The remaining categories of rated requirements--AFIT, PME, supplement, and transient differ in that they cannot be tracked to specific rated manpower authorizations. Rated supplement, AFIT and PME requirements are manyear allowances for rated officers to participate in professional development and education or to broaden their careers by serving in a nonrated career field. These requirements were set by the Rated Supplement Review Board in 1979 and 1986.[8]

The rated force is highly visible in that numerous agencies participate in the requirements justification process. Additionally, there are two competing needs within the rated community which consistently spark heavy debate. On the one hand, there is a requirement to sustain the rated force through sufficient production to fill all rated needs in the future.

Certainly, retention and econometric factors play heavily on rated force projections. On the other hand, limitations such as training assets, stability, and experience criteria tend to put a limit on the number of pilots and navigators MAJCOMS can absorb. Without question, the rated force lives under a microscope, not only within the Air Force, but in Congress as well. Of all personnel data displays provided in the "USAF Summary," more are allocated to rated force analysis, and pilots in particular, than any other occupation group in the Air Force.[9] Most recently, Senator John Glenn has asked the GAO to conduct an audit of pilot requirements.[10]

This information illustrates the requirements determination process and highlights some of the differences that exist in the world of manpower requirements. As a consequence of this discussion, we can draw some conclusions:

1. Some nonrated officer requirements are not covered by the management engineering process.

2. All rated officer requirements are quantified and examined through an extensive rated management process.

3. Rated officer requirements receive considerably more scrutiny than nonrated officer requirements.

CHAPTER IV

COMPARATIVE ANALYSES

Even though we've examined the process used to generate officer requirements, the process means very little unless we can measure our officer size and growth patterns against some overall criteria. Many critics favor the officer to enlisted ratio as an effectiveness criterion. Other, more useful criteria include measuring officer strength against force structure and infrastructure. We'll use total aircraft inventory as a force structure measure and number of Air Force installations as a measure of our base infrastructure.

OFFICER TO ENLISTED RATIO

On the surface, it's difficult to see how the officer to enlisted ratio means very much, if anything. In other services the warrior or fighting element consists mainly of enlisted people. Conversely, the Air Force warrior element is predominantly in the officer corps (pilots, navigators, missile launch officers). If our officer growth would be in the fighting element, one could make a strong argument that an increase in the officer to enlisted ratio is directly linked to an increase in Air Force combat capability. Naturally, this is the exact

opposite of what the reformers advocate, since they tend to lump all the services into one category. Let's start off by looking at aggregate officer to enlisted ratio's at five-year increments.

YEAR	OFFICER	ENLISTED	RATIO
1950	57006	352085	.1619
1955	137149	818478	.1676
1960	129689	680666	.1905
1965	131812	689585	.1911
1970	129532	657402	.1970
1975	105161	503176	.2090
1980	97901	455909	.2147
1985	100400	488603	.2219

Source: USAF Statistical Digest, USAF Summary[1]

Essentially, this chart confirms what we already know--the officer to enlisted ratio has increased over time. For example, in 1950 we had 16.19 officers per 100 enlisted personnel. The above chart shows us that this ratio had increased to 22.19 per 100 enlisted by 1985.

The question now becomes whether we can attribute this to the fact that we've added more officers to the "fighting" force which would cause the ratio to increase, or whether it can be attributed to some other factor. A quick and convenient method to make this comparison would be to compute a rated officer to

enlisted ratio and a support officer to enlisted ratio. If the rated officer to enlisted ratio shows an increase while the support officer to enlisted ratio shows a decrease or remains relatively constant, we can logically conclude that the increase in the ratio is defendable based on an increase in our combat element. First, let's look at the rated side.

YEAR	RATED OFF	ENLISTED	RATIO
1950	31830	352885	.090
1955	71661	818478	.088
1960	72648	680666	.107
1965	65513	689585	.095
1970	54356	657402	.083
1975	46639	503176	.093
1980	35100	455989	.077
1985	34535	488603	.071

Source: USAF Statistical Digest, USAF Summary[2]

This data reveals that the rated officer to 100 enlisted ratio has varied from a high of 10.7 in 1960 down to 7.1 in 1985. It certainly shows that there is no upward trend as we saw when we compared aggregate officer numbers to enlisted. This suggests that rated officer growth and drawdowns roughly parallel that of the enlisted. The chart at Attachment 4 more clearly illustrates this statement.

Like the rated officers, missile launch officers are an integral part of our combat force. Their numbers are considerably less than the rated force. From 1965 to 1985 we have had between 3005 and 3800 missile launch officers. As of 1985, they numbered 3012 compared to a peak of 3800 in 1975. The trend is downward and will continue to be so with deactivation of all Titan missiles. Should the INF Treaty be ratified, there will be a further decrease in missile launch officers. Clearly, the missile operations force has not contributed to a higher officer to enlisted factor.

One can definitely say that the overall increase in the officer to enlisted ratio has nothing to do with increases in the fighting portion of our officer corps. In fact, if anything, there seems to be a negative correlation. As a consequence of this information we should see a nonrated officer to enlisted ratio growth pattern that is even steeper than that of aggregate officer to enlisted data.

YEAR	NONRATED	ENLISTED	RATIO
1950	25176	352085	.072
1955	65488	818478	.080
1960	57041	680666	.084
1965	66108	689585	.096
1970	75176	657402	.114
1975	58522	503176	.116
1980	62801	455909	.138

1985	71875	488603	.151

Source: USAF Statistical Digest, USAF Summary[3]

The data supports what we expected to see, which is an escalating rise from 7.2 to 15.1 nonrated officers per 100 enlisted people. This information can be seen as well on Attachment 4. Unlike the rated force, the growth/drawdown patterns of the support force do not parallel those of the enlisted force. What this suggests is that nonrated officer growth has little, if anything, to do with our enlisted manpower. In many respects, this is not surprising. Much of our officer growth is likely related to scientific/technical demands on the Air Force (We'll investigate this in the next chapter). Career fields in computers, engineering, space, etc., tend to be officer intensive with a premium on specialized education found almost exclusively in the officer force.

FORCE STRUCTURE

Perhaps by turning to force structure we can get more meaningful comparisons. The most meaningful measure of force structure is active aircraft inventory. More aircraft directly translates into more force structure. If inventory totals do not change, or in fact decrease, with new aircraft acquisitions, it is because we are modernizing our force and retiring obsolete forces. In any case, we routinely hear that the requirement for

more manpower is force structure related. Conversely, our frequent response to pressures for a reduction in manpower is to say we are going to have to reduce force structure.[4] In any event, one would expect that officer force size might be a function of aircraft inventory size. When we review aircraft inventories we can look at each weapon system, but eventually we would have to look at aggregate information to make some general comparisons. The ratio between types of aircraft is relatively constant and would prove little, if anything. For this reason, we'll look at overall data. The figures below give a five-year interval review of total active aircraft inventory (TAI) and flying hours.

YEAR	TAI	FLY HOURS
1950	17063	3,667,293
1955	25088	8,338,471
1960	15312	7,130,951
1965	12181	6,018,558
1970	11221	6,326,157
1975	7446	3,078,261
1980	7175	2,597,275
1985	7271	2,913,600

Source: USAF Statistical Digest, USAF Summary[5]

Overall, this information shows a startling reduction in

our TAI from the mid-1950's to 1985 with almost 18,000 fewer aircraft. We already know from our previous information that officer corps size will not fit the force structure pattern. The following chart reflects both our rated and nonrated officer to aircraft ration.

YEAR	RATED/TAI	NONRATED/TAI
1950	1.87	1.48
1955	2.86	2.61
1960	4.74	3.73
1965	5.38	5.43
1970	4.84	6.70
1975	6.26	7.86
1980	4.89	8.75
1985	4.75	10.16

DATA: USAF Statistical Digest, USAF Summary[6]

What we see here is a ratio of rated officers to aircraft that has stabilized below 5.0 in the last decade. This is not surprising from the standpoint that most pilot/navigator requirements are linked to factors such as crew ratios. In fact, this chart shows the excess of pilots we had in the mid-1970's. Since then, with implementation of the more precise rated management system, the data reflects a relatively stable balance

of the rated force with respect to force structure. This is clearly not the case for the nonrated officer to aircraft ratios. What we see is a consistent and continuing increase in the nonflyer to aircraft comparison. Based on this data, it is not possible to link growth in the nonrated officer corps to the aircraft force structure which has been comparatively stable in recent years. Attachment 5 is a display of pilots and nonrated officer to aircraft ratios.

AIR FORCE INSTALLATIONS

Another basis for comparison is Air Force installations. The reason for using this as a measuring device is that every infrastructure, such as a base, generally requires a cadre of officers to operate such an installation. For example, every major base requires civil engineers, supply officer, finance officer. . . . the list goes on. If we compare the number of installations operated by the Air Force and find there is an increasing number of them, then we may have a plausible explanation for officer growth. Our data for installations includes both "major" installations and "other" installations in the United States and overseas. A major installation is one at which full-time flying or missile operations are conducted by a permanently assigned undeployed squadron, or it can be an installation which has no operational flying or missile mission, but does have a wing headquarters or its equivalent or higher Air Force organization. In 1975, we had 148 major installations, and

by 1985 this had decreased to 136 major installations. Other installations include items such as auxiliary airfields, ballistic missile sites, electronics stations, etc. The chart below includes both type installations.

YEAR	U.S.	OVERSEAS	TOTAL
1975	2299	892	3191
1977	2481	680	3161
1979	2276	672	2948
1981	2181	646	2827
1983	2192	670	2862
1985	2132	703	2835

Source: USAF Summary[7]

In the 1980's, our number of installations has remained relatively constant at the 2800 level, but our net decrease in the 1975 to 1985 decade was 356. What this tells us is that there is no correlation, other than a negative one, between our base infrastructure and officer growth. What it does show is the post Southeast Asia drawdown in installations until we reached the period of relative stability in the 1980's.

Our comparisons with enlisted population, aircraft inventory, and active Air Force installations have provided us some rather interesting information, and we can draw these conclusions from it:

1. Rated/missile officer to enlisted ratios have remained relatively stable since the 1950's. Growth and drawdowns in these two groups have roughly paralleled. The nonrated officer to enlisted ratio has more than doubled since 1950.

2. Officer to force structure (aircraft) ratios show a fairly constant relationship between rated officer corps size and aircraft inventory. Nonrated officer growth is not related to force structure.

3. There is only a negative correlation between officer corps size and number of installations over the past decade.

These comparisons have not provided us with a valid explanation for some of the growth in the officer force, specifically in the support areas. More investigation is necessary to better focus on what has changed in the officer ranks.

CHAPTER V

OFFICER GROWTH PATTERNS

So far, the data we've used does not leave us with a comfortable feeling about how and where we've experienced growth in the officer corps, especially with regard to the Air Force as a fighting force. Perhaps by looking at the officer population in the various MAJCOMS, we can better determine where and why the growth has occurred since the 1970's. Additionally, a review of growth patterns by occupational specialty can enlighten us even more, and may show us exactly what kind of "additional" officers we've been bringing on board.

FIGHTING FORCE DEFINITIONS

At this point, we need to define the officer "fighting force." Certainly everyone has an opinion on the essential elements of the combatant portion of the Air Force. We are no exception. Thus far, we have only focused on the rated officer corps--pilots and navigators--along with missile launch officers. Collectively, they are the group that delivers ordnance on a target. From our perspective, three other groups of officers belong in the category of the fighting force. They are weapons controllers, aircraft maintenance officers, and missile

maintenance officers. These people are so closely linked to sortie production and missile launch that they cannot be distinguished from the "teeth" of the force. Another reason for this grouping is that all can be directly tied to force structure and combat capability. Critics can argue that others rightfully belong in this grouping, and in isolated instances they may be correct. We want to keep the definition of the fighting force very distinct so that, as we look at officer growth patterns, it will be very clear whether the growth is in the teeth or the tail. Finally, we would not want to be accused of trying to inflate the size of our combatant force. As we go through this chapter, let's focus on the MAJCOMs that have the bulk of these people to see how they have fared relative to those that either have little or none of the fighting force.

MAJCOM REVIEW

We will review the MAJCOMs over three periods--1975, 1980, and 1985. During this review, we need to keep some things in mind. First, there have been some mission changes among the MAJCOMs. For example, the airlift C-130 force used to be in Tactical Air Command, but is now in Military Airlift Command. Also, there were 12 MAJCOMs and 15 Separate Operating Agencies (SOAs)/Direct Reporting Units (DRUs) in 1975; but by 1985, there were 14 MAJCOMs and the number of SOAs/DRUs had increased to 30. Despite the proliferation of new organizations in the Air Force, the operational fighting force structure and the officers

directly linked to it still fall under the auspices of the MAJCOMs.

The following chart gives us an idea how our officer force is distributed by MAJCOM. The bottom portion of the chart also shows aggregate data on total officers assigned to the MAJCOMs and the percentage they represent of the total Air Force officer corps.

MAJCOM OFFICERS

MAJCOM	1975	1980	1985
ATC/AU	18040	15276	16886
AFC	3767	-----	-----
AAC	865	844	887
AFCC	2685	3043	4352
ESC	(AFSC)	863	1089
AFLC	2644	2633	3182
MAC	12281	11937	12915
PACAF	4718	3165	3378
SPACECOM	-----	-----	1699
SAC	21848	18459	17358
AFSC	9595	9949	12882
TAC	9545	13904	14336
USAFE	6113	6854	7184
-----	-----	-----	-----
MAJCOM TOTAL	92101	86927	95988

AF TOTAL	105161	97981	108480
% OF TOTAL	87.6%	88.8%	88.5%

Source: USAF Statistical Digest, USAF Summary[1]

This information is useful from a couple of vantage points. It shows us how each MAJCOM has either grown or declined from the previous five-year snapshot and permits us to evaluate which commands have benefitted from more officer manpower. The totals also reflect that the percentage of the total officer corps assigned to MAJCOMs has been constant around the 88% range. The remaining 12% are assigned to SOA/DRUs. We can see some obvious disparaties especially when we look at the delta (change) from 1980 to 1985. While the total officer corps increased by 10,499 (+10.7%), some MAJCOMs did not grow (e.g. SAC) while others experienced substantial increases (e.g. AFCC).

OPERATIONAL/SUPPORT MAJCOM DISTINCTION

At this point, we are going to put the MAJCOMs in two categories - operational MAJCOMs and support MAJCOMs. The operational commands are those with operational force structure (i.e. CC coded aircraft or operational offensive missiles). The remaining commands serve in a supporting capacity. We'll compare the net change in officer totals for each command from 1980 to

1985 along with the percentage increase or decrease. The results will show whether the operational or support commands benefitted most from the 9,061 increase in MAJCOM manning from 1980-1985, or whether the growth was spread evenly between the two categories.

OFFICER GROWTH 1980-1985: OPERATIONAL COMMANDS

MAJCOM	CHANGE	%CHANGE
AAC	-37	-4.4%
MAC	+978	+8.2%
PACAF	+213	+6.7%
SAC	-1101	-6.0%
TAC	+432	+3.1%
USAFE	+330	+4.8%
TOTAL	+815	+1.5%

Source: USAF Summary[2]

OFFICER GROWTH 1980-1985: NONOPERATIONAL COMMANDS

MAJCOM	CHANGE	%CHANGE
ATC/AU	+1610	+10.5%
AFCC	+1309	+43.0%

ESC	+226	+26.2%
AFLC	+549	+20.9%
SPACECOM	+1699	-
AFSC	+2853	+28.7%
———	------	-----
TOTAL	+8246	+26.0%

DATA: USAF SUMMARY[3]

The results of this comparison are nothing short of astounding. The operational commands experienced either negative or little officer growth during the 1980-1985 period with a cumulative gain of 815 officers or +1.5%. Conversely, the support commands were the benefactors of phenomenal increases with a cumulative gain of 8246 officers which represents an increase of 26.0%. This is a gain ratio of over 10:1, and for all practical purposes, we can say that virutally all the officer increases have gone to our supporting rather than fighting commands. This corroborates a conclusion that stated officer growth was not force structure related.

GROWTH BY OCCUPATIONAL SPECIALTY

Given the highly interesting data we developed from a review of the MAJCOMs, let's get more specific and look at growth patterns by occupational specialty. Based on what we've seen so far, we'll focus on two areas--fighting force specialties and

those specialties associated with the commands that have experienced the most growth. We'll also take a look at some random support officer specialties to assess overall growth. A good reference point for growth information is 1977, since it represents one of the low water marks in overall officer force size. This will allow us to see where the Air Force has placed it's growth emphasis in recent years. The table below reflects the net growth or decline from 1977-1985 and the percentage increase it represents for a particular specialty. It should provide quite useful information in that it shows exactly how many officers were working in particular specialties in a given year and excludes those in pipeline/training status.

OFFICER SPECIALTY GROWTH 1977-1985

SPECIALTY	1977 BASELINE	+/- CHANGE TO 1985	% +OR-
Pilots/Navigators/Observer	29058	-664	-2.3%
Missile Operations	3233	-211	-6.5%
Weapons Director/Controller	1517	+390	+25.7%
Aircraft Maintenance	3652	+5	+0.1%
Missile Maintenance	505	-39	-7.7%
---	---	---	---
Space Systems	454	+793	+174.7%
Scientific	1103	+316	+28.6%
Acquisition Management	1659	+887	+53.5%
Development Engineering	4265	+1648	+38.6%
Transportation	914	+55	+6.0%
Supply Services	319	+107	+33.5%
Security Police	978	+98	+10.0%
Info. Systems (Comm/Computer)	5115	+1520	+29.7%
Administration	2375	+152	+6.4%
Intelligence	2264	+594	+26.2%
Medical	9693	+2710	+28.0%
International Pol Mil Aff	154	+65	+42.2%
Audio Visual	89	+24	+27.0%
Legal	1096	+196	+17.9%
Civil Engineering	1834	+518	+28.2%
Finance	1247	+11	+0.8%
Logistics Plans	914	+176	+19.3%

Source: USAF Summary[4]

As you can see, the dotted line separates the fighting force specialties from the support force. With the exception of weapons controllers, it also seems to be a line dividing the loss/no growth specialties from those that have in some cases experienced extraordinary growth. Especially disturbing is that, on the whole, officers in the fighting force have actually declined between 1977 to 1985 while our total officer force increased from 96,254 to 108,400 - a change of +12,146! Certainly one can understand, to some extent, the growth in space systems over this period. Understandable also are modest (5-10%) increases in some of our high tech specialties. What challenges the imagination is what appears to be unconstrained or undisciplined growth in certain other areas. One has to question growth in excess of 25% in scientific, acquisition, engineering, services, communications/data automation, intelligence, medical, political military affairs, civil engineering and audio-visual officers; especially when done at the expense of or in lieu of our combatant officers. The chart above does not include all career fields, but it is certainly representative of what has happened to the types of jobs our officers are doing. A summary that compares the "teeth" to the "tail" which includes all occupational specialties is at Attachment 6. This graph clearly illustrates the dynamics between our combatant and support forces, and highlights the radical shift in emphasis during the mid-1970's from "teeth" to "tail."

It seems highly doubtful that our Air Force leaders would

want us to follow this path purposely. More likely is the possibility that it has happened incrementally without anyone stepping back to look at what has happened to the overall officer mix. For example, there was probably some justification for adding 24 audio visual officers and 152 administrative officers during 1977-1985, but it is highly doubtful if anyone ever asked whether it was more important to our warfighting mission to have these individuals rather than more aircraft maintenance officers--a career field in which we added only five officers during this same period.

Looking at the officer growth patterns, we can see that they parallel the growth by MAJCOMs. For example, the bulk of scientists and engineers would go to Systems Command. Similarly, most communicators and computer specialists would likely be assigned to Communications Command. Another phenomenon is that many of the support officers probably also went to these commands because of the increased base operating support needed for the additional technical officers. There are ways to check this information, but such is beyond the scope of this study. Suffice it to say that the patterns we see in officer specialty growth mirror the patterns witnessed in MAJCOM growth.

Conclusions that we can logically derive from this data are:

1. MAJCOMs with operational force structure (aircraft/missiles) experienced a net officer increase of 1.5% (815 officers) from 1980-1985.

2. Support MAJCOMs had a net officer increase of 26.0% (8246 officers) from 1980-1985.

3. Officers performing fighting force duty (teeth) had a net decrease of 519 (-1.4%) from 1977-1985.

4. Officers performing support duty (tail) had a net increase of 12,665 (21.7%) from 1977-1985.

CHAPTER VI

CONCLUSIONS

We've looked at the Air Force officer corps from a number of different perspectives--historical; the requirements process; comparisons with enlisted, force structure, and installations; MAJCOM changes; and growth patterns by occupational specialty. In each chapter, we came up with some conclusions regarding our analysis. Before reaching any final assessment, let's review the independently derived conclusions to see if they tie with each other:

1. The Air Force officer corps has transitioned from a predominantly rated to nonrated force.
2. The officer corps has experienced consistent growth since 1978.
3. Officer increases since 1978 have been almost exclusively in nonrated specialties.
4. Some nonrated officer requirements are not covered by the management engineering process.
5. All rated officer requirements are quantified and examined through an extensive rated management system.
6. Rated officer requirements receive considerably more scrutiny

than nonrated officer requirements.

7. Rated/missile officer to enlisted ratios have remained relatively stable since the 1950's. The nonrated officer to enlisted ratio has more than doubled since 1950.

8. Officer to force structure (aircraft) ratios show a fairly constant relationship between rated officer corps size and aircraft inventory. Nonrated officer growth is not related to force structure.

9. There is only a negative correlation between officer corps size and number of installations in the past decade.

10. MAJCOMs with operational force structure (aircraft/missiles) experienced a net officer increase of 1.5% (815 officers) from 1980-1985.

11. Support MAJCOMs had a net officer increase of 26.0% (8246 officers) from 1980-1985.

12. Officers performing fighting force duty (teeth) had a net decrease of 519 (-1.4%) from 1977-85.

13. Officers performing support duty (tail) had a net increase of 12,665 (21.7%) from 1977-1985.

A review of these separately derived statements reflects a consistently undesirable trend in the United States Air Force officer corps. In the last decade, we have taken a rapid and dramatic shift of emphasis away from the fighting force and put it on the support force. The graph at Attachment 6 best summarizes our total officer corps experience, and suggests that

we are transitioning out of the warfighting business just to support the tremendous overhead we have created.

From the evidence presented in this paper, here's what we think has happened. In the mid-1970's, the rated force took tremendous strides in quantifying its current and future needs. Rated requirements were subject to an intense series of checks and balances and still are today. Additionally, fighting force career fields (missile operations/maintenance and aircraft maintenance) were so closely tied to force structure that any growth/reduction would be closely associated with aircraft/missile/flying hours. The weapons controller field grew as a direct consequence of the E3A expansion.

Conversely, the support officer requirements received no "big picture" assessments and grew virtually unchecked in a permissive environment that has lasted almost a decade. Despite the manpower community's best efforts, it was unable to validate or invalidate the massive requirements for support officers. Most important, however, was the fact that no one made any concerted attempt to constrain the support force. Perhaps, that's why we have more finance officers than bomber pilots; more engineers than fighter pilots; more communications/computer officers than tanker/transport pilots; more administrative officers than weapons controllers; more public affairs officers than missile maintenance officers; and more scientists/ intelligence officers than aircraft maintenance officers. The point of making these comparisons now is that most likely no one

did in the past, and as a direct consequence we find our Air Force officer force the frequent target of critics.

Our officer growth over the last decade is unquestionably unrelated to our force structure. The question asked by the title of this paper is pertinent: "Is the USAF Officer Corps a Fighting Force?" Our answer is yes, but along the way we've picked up so much extra baggage that we've seriously jeopardized the future of our fighting force and the ability to sustain it. Our basic warfighting charter has not changed. . . let's not lose sight of it! Where do we go from here? Read on.

CHAPTER VII

RECOMMENDATIONS

The pressure to reduce military manpower is intense and, in the era of shrinking defense budgets, it will become even more pronounced. Many critics will emphasize that the officer corps is the most likely target for cuts. Our conventional approach to these pressures has been either to threaten to or actually cut force structure. This is the easy approach because we can readily quantify the magnitude of such an action: it saves both manpower and money; and, of course, it's the most dramatic.

Unfortunately, force structure cuts represent the most disastrous approach in the long term. First, they are contradictory to our basic warfighting charter. The result of these actions is that they further increase the ratio of support forces to fighting forces. These actions signal to our critics that we prefer to save support activities (e.g. bands, administration, audio visual) over flying squadrons. This has the net effect of making us an even richer target for reformers both in and out of the Congress.

Well, what should we do? Our suggestion is to go back to 1977 as a baseline year for our officer corps. We chose this year because it represents the time we, as an Air Force, lost

control of support officer growth (see Attachment 6). The Air Force Council, not manpower specialists, should then establish how much support officer growth is tolerable from this baseline of 54,190 nonrated officers. Keep in mind that, by 1985, we were already up to 73,875 support officers. Our conservative estimate is that we could not only survive, but perhaps function more efficiently as a fighting force with 10,000 fewer support officers. It seems ironic that the specialties we've thrown the most officers into over the last decade (e.g. data automation, intelligence, communications) are the very areas that represent some of our largest battlefield uncertainties. After our leaders establish a support officer cap, then we can let the functional representatives and manpower specialists wrestle over priorities within the constraints. The Air Staff Board can bless the results of these efforts and we can begin the reduction in our support officer force through normal attrition. A reduction in force (RIF) is not necessary to achieve the desired results in a reasonable period of time. Additionally, this proposed course of action would give support MAJCOMs time to reorganize with fewer people--it may even provide an impetus to consolidate rather than create organizations. With this action, we can end the disturbing trend of having the fighting force absorb the burden of a bloating support force.

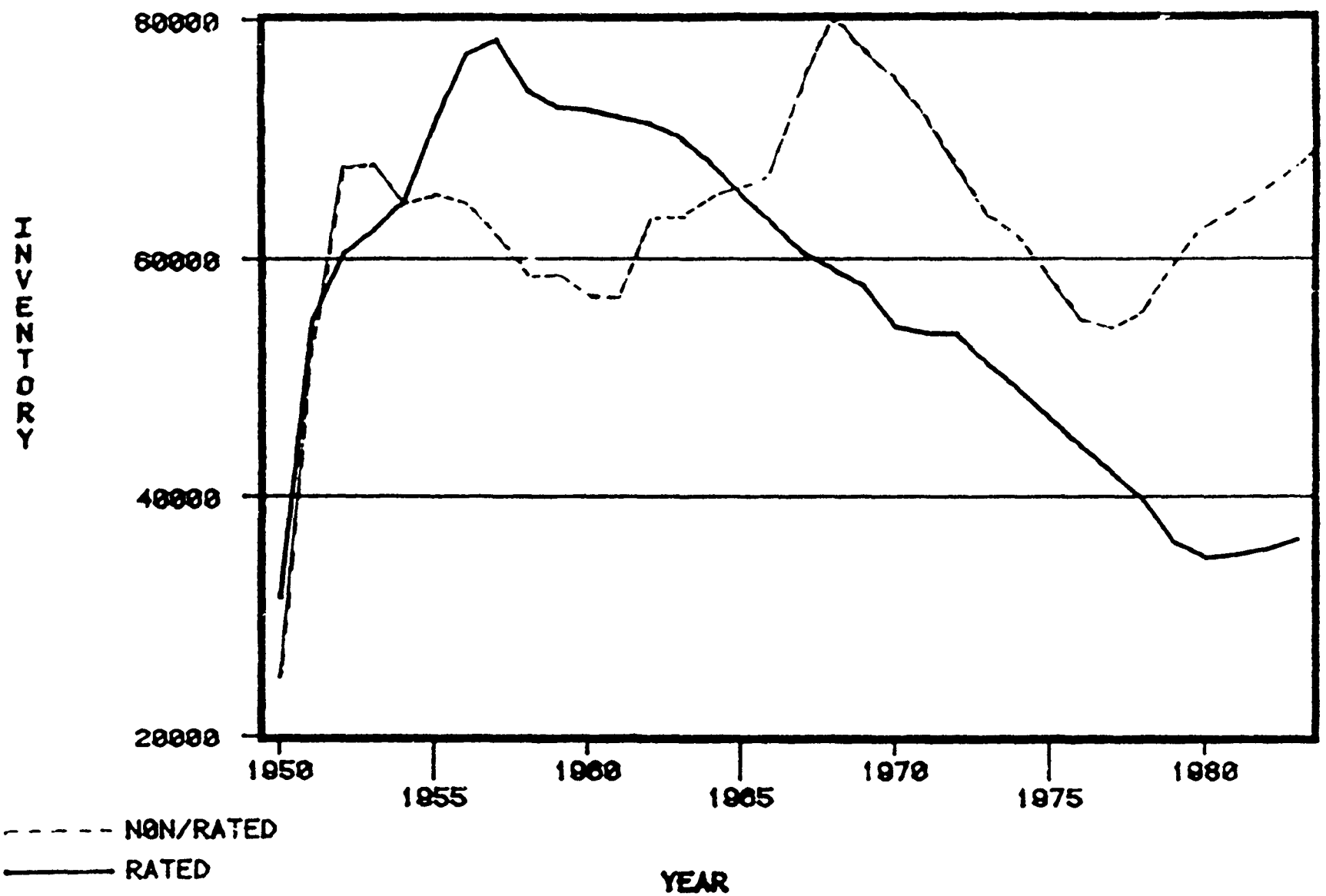
The savings associated with a 10,000 officer cut exceed one half billion dollars annually. It shows our intent to focus on the teeth rather than tail. This alone could silence critics,

because it represents a proactive rather than reactive stance to a situation where we have to take some action. Such an aggressive posture would allow us to choose where the cuts should be taken, rather than allowing those a lot less capable of making reasoned decisions to do so for us. Additionally, this can take some pressure off end strength ceilings and alleviate the current necessity we feel to either civilianize or contract out military activities. For example, maybe we could stop the current impetus to contract out aircrew training. To some, this is an insult to the very essence of the Air Force. It seems ludicrous that we retain administrative officer training as a more inherently military function than aircrew training.

In the 1970's, there were some efforts made toward creating a support officer distribution and training management system similar to that which had been institutionalized for the rated community. Perhaps, if these efforts had been more successful and had evolved into something like the rated management process, the situation might be different now. Clearly, we need to take some decisive action to remedy the unacceptable position we find ourselves in today. It is not fair, nor does it make sense, to expect the manpower people alone to solve the problem. At a minimum, we need to begin a drawdown of the support officer force, before it strangles our fighting force. If we don't step up to this responsibility, outside agencies such as OMB, the GAO, and the Congress are going to do it for us. If we wait to let this happen, then perhaps we deserve our fate. . . . whatever it might be.

OFFICER INVENTORY

OFFICER INVENTORY



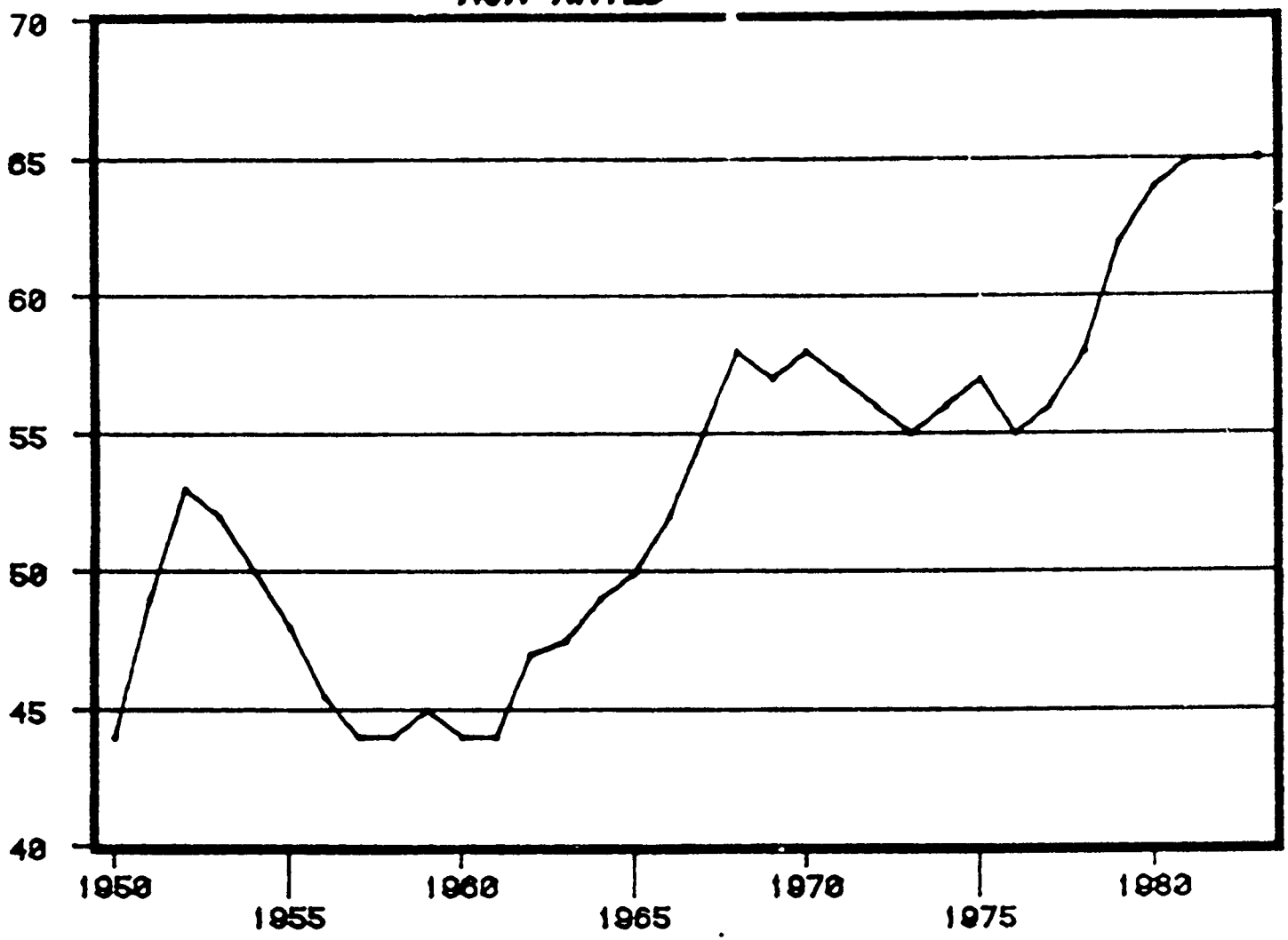
Attachment 2

48

OPR:MPPTF

PERCENTAGE OFFICER FORCE

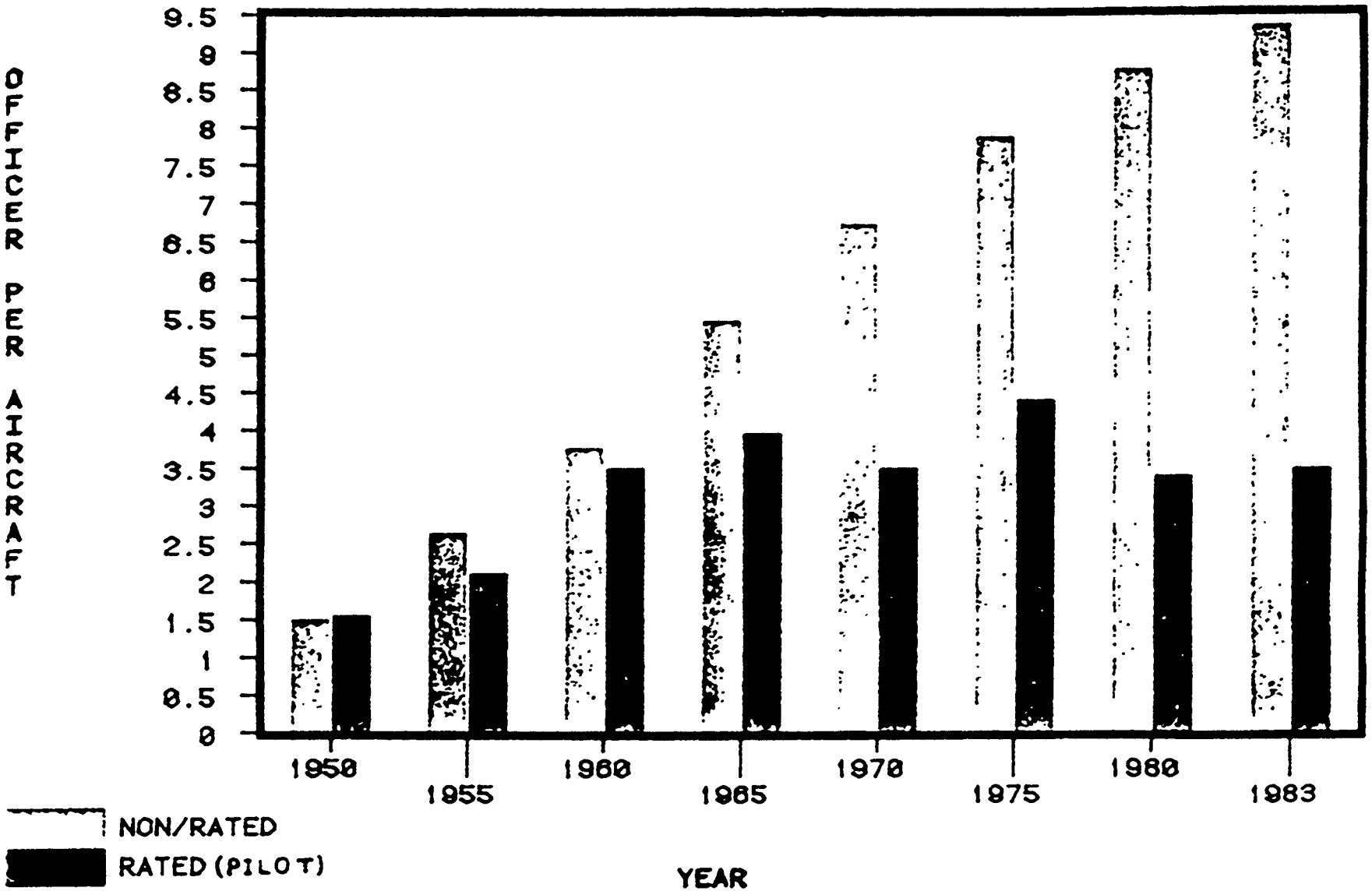
NON-RATED



OPR:MPPTP

Attachment 4

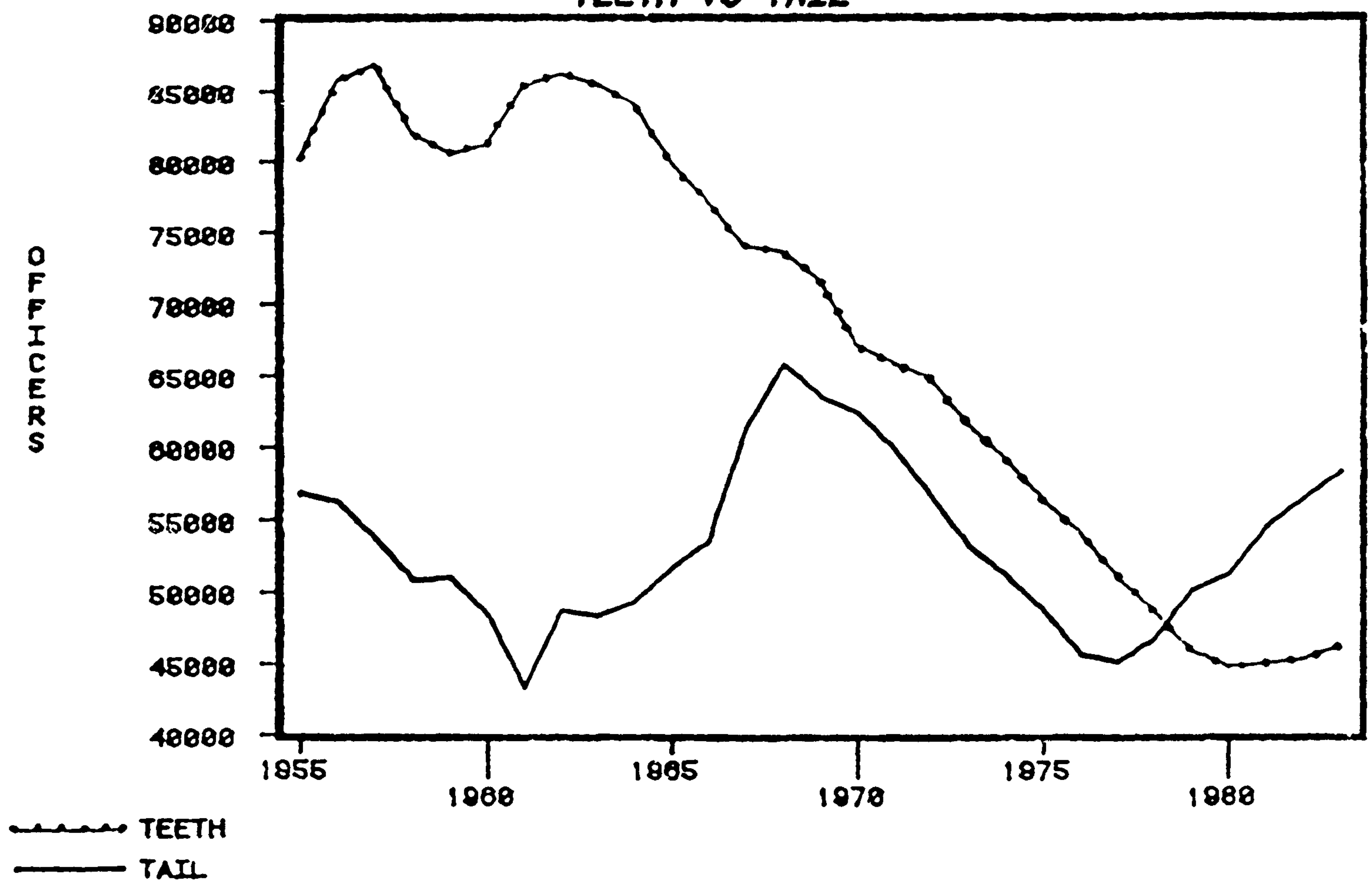
OFFICER PER AIRCRAFT RATIO



OPR:MPPTF

Attachment 6

OFFICER INVENTORY
TEETH VS TAIL



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7. John Burlage, "Officer Cut of 2,255 Planned by Sep. 30," Air Force Times, 18 January 1988, p. 1.

8. John Ginovsky, "GAO Study Faults AF Manpower Allocation System," Air Force Times, 14 September 1987, p. 6.

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CHAPTER II (Pages 5-12)

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2. Ibid.

3. Ibid.

4. Documents compiled from AF/MPPTF Historical Data Sheets: "Pilot/Navigator Requirements Inventories, and UPT

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Enlisted Force Totals. Data reverified and updated in 1987-1988 by authors.

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CHAPTER V (Pages 29-39)

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